



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,416	10/03/2003	Paul E. Gorday	CML01150J	1000
22917	7590	09/07/2005		EXAMINER
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196				HO, CHUONG T
			ART UNIT	PAPER NUMBER
				2664

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/678,416	GORDAY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	CHUONG T. HO	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 27 June 2005.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 25-43 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 25-43 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

Art Unit: 2664

1. The amendment filed 06/27/05 have been entered and made of record.
2. Applicant's arguments with respect to claims 25-43 have been considered but are moot in view of the new ground(s) of rejection.
3. Claims 25-43 are pending.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 25-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (U.S. Patent No. 6,876,675 B1) in view of Jones IV et al. (U.S. 6,930,989 B1).

In the claims 25, 32, 39, see figure 2, Jones discloses these synchronization bursts have special frequency domain characteristics to facilitate receiver alignment to the transmitter's bursts timing and carrier frequency (see col. 3, lines 29-30); comprising:

- Transmitting a plurality of frequency synchronization bursts (see figure 2, col. 3, lines 28-30; each frequency synchronization burst contains information regarding its particular frequency offset (see col. 5, lines 19-21, the use of a synchronization burst to acquire burst timing and frequency offset);

However, Jones is silent to disclosing wherein each frequency synchronization burst from the plurality of synchronization burst is transmitted at particular, but differing frequency offset from a center frequency.

Jones IV et al. discloses wherein each frequency synchronization burst from the plurality of synchronization burst is transmitted at particular, but differing frequency offset from a center frequency (see figure 4, step 408, find phase difference between training symbols of successive bursts "synchronization bursts"); transmitting at the center frequency, one or more data packets to the second wireless device (see figure 1, col. 9, lines 29-31).

Both Jones, Jones IV discloses adjust the second transceiver device's operating frequency to match the frequency of the first transceiver device. Jones IV recognizes wherein each frequency synchronization burst from the plurality of synchronization burst is transmitted at particular and contains information (burst timing and frequency offset) regarding its particular frequency offset. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Jones with the teaching of Jones IV to provide each synchronization burst which is transmitted at a different frequency offset in order to estimates the carrier frequency offset with respect to a second station and transmits signals that are responsive to the estimate carrier frequency offset.

5. In the claims 26, 33, 40, Jones discloses the synchronization burst also contain information (see col. 5, lines 29, the use of synchronization burst to acquire burst timing "time offset" and frequency offset) regarding a time offset.

Art Unit: 2664

6. Regarding to claim 27, 35, 30, 31, 37, 38, 42, 43, Jones discloses transmitting a plurality of frequency synchronization bursts comprising: transmitting the plurality of frequency synchronization bursts in a suitable pattern; and transmitting frequency position information relative to each frequency synchronization bursts with respect to the data packets, the information being transmitted as a part of the frequency synchronization burst, the relative position of the frequency synchronization bursts (see col. 3, lines 28-30) being determined in terms of the time and frequency (see col. 5, lines 31-35, lines 1-10).

7. Regarding to claim 28, Jones IV et al. discloses adjusting frequency of the second wireless device after the completion of an exchange of packets (see col. 9, lines 18-21, frequency control block 508 adjusts the operating frequency of variable frequency oscillator 506 to correct for both the large and small integer offsets as determined by integer frequency offset processing block 518).

8. In the claims 29, 36, 41, Jones et al. discloses transmitting frequency synchronization burst before a transmission of beacon packets, the transmission of beacon packets being executed by a network coordinator device (see col. 5, lines 31-35).

9. Regarding to claims 32, 33, see figure 2, Jones discloses these synchronization bursts have special frequency domain characteristics to facilitate receiver alignment to the transmitter's bursts timing and carrier frequency (see col. 3, lines 29-30); comprising:

Art Unit: 2664

- Transmitting a plurality of frequency synchronization bursts (see figure 2, col. 3, lines 28-30; each frequency synchronization burst contains information regarding its particular frequency offset (see col. 5, lines 19-21, the use of a synchronization burst to acquire burst timing and frequency offset);

However, Jones is silent to disclosing wherein each frequency synchronization burst from the plurality of synchronization burst is transmitted at particular, but differing frequency offset from a center frequency.

Jones IV et al. discloses wherein each frequency synchronization burst from the plurality of synchronization burst is transmitted at particular, but differing frequency offset from a center frequency (see figure 4, step 408, find phase difference between training symbols of successive bursts "synchronization bursts"); transmitting at the center frequency, one or more data packets to the second wireless device (see figure 1, col. 9, lines 29-31).

Both Jones, Jones IV discloses adjust the second transceiver device's operating frequency to match the frequency of the first transceiver device. Jones IV recognizes wherein each frequency synchronization burst from the plurality of synchronization burst is transmitted at particular and contains information (burst timing and frequency offset) regarding its particular frequency offset. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Jones with the teaching of Jones IV to provide each synchronization burst which is transmitted at a different frequency offset in order to estimates the carrier frequency offset with respect

to a second station and transmits signals that are responsive to the estimate carrier frequency offset.

10. Regarding to claim 39, see figure 2, Jones discloses these synchronization bursts have special frequency domain characteristics to facilitate receiver alignment to the transmitter's bursts timing and carrier frequency (see col. 3, lines 29-30); comprising:

- Transmitting a plurality of frequency synchronization bursts (see figure 2, col. 3, lines 28-30; each frequency synchronization burst contains information regarding its particular frequency offset (see col. 5, lines 19-21, the use of a synchronization burst to acquire burst timing and frequency offset);

However, Jones is silent to disclosing wherein each frequency synchronization burst from the plurality of synchronization burst is transmitted at particular, but differing frequency offset from a center frequency.

Jones IV et al. discloses wherein each frequency synchronization burst from the plurality of synchronization burst is transmitted at particular, but differing frequency offset from a center frequency (see figure 4, step 408, find phase difference between training symbols of successive bursts "synchronization bursts"); transmitting at the center frequency, one or more data packets to the second wireless device (see figure 1, col. 9, lines 29-31).

Both Jones, Jones IV discloses adjust the second transceiver device's operating frequency to match the frequency of the first transceiver device. Jones IV recognizes wherein each frequency synchronization burst from the plurality of synchronization burst

is transmitted at particular and contains information (burst timing and frequency offset) regarding its particular frequency offset. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Jones with the teaching of Jones IV to provide each synchronization burst which is transmitted at a different frequency offset in order to estimates the carrier frequency offset with respect to a second station and transmits signals that are responsive to the estimate carrier frequency offset.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

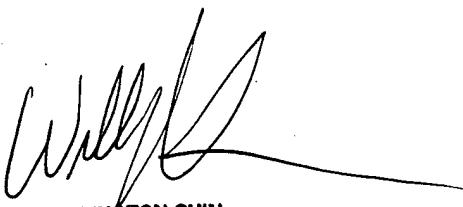
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571) 272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

09/05/05



WELLINGTON CHIN  
ADVISORY PATENT EXAMINER